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10/537,526	10/06/2005	Elmar Kessenich	13486-00001-US	3587

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EXAMINER	
ZIMMERMAN, JOSHUA D	

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2854	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/537,526	KESSENICH ET AL.	
	Examiner	Art Unit	
	Joshua D. Zimmerman	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 June 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *17-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 June 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 21 is objected to for being of improper dependent form. It is not clear how the apparatus is used in the process because the positively recited process steps do not require all the components of the apparatus. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 17, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Okamura (US 5795689) in view of Sawano (US 6293651).

Regarding claim 17, Okamura discloses "an apparatus for the in-line production of flexographic printing plates by means of digital imaging (Figure 1), at least comprising

(A) a unit for holding digitally imageable, photopolymerizable, flexographic printing elements (item A),

(B) a unit for the digital imaging of the flexographic printing element, which comprises at least two functional units of the same type, selected from the group consisting of thermal printing heads, of IR lasers, inkjet printing heads or thermal printing heads (figure 6, Items H1 and H2),

(C) an exposure unit (Item H),

(D) a washout unit (item D),

(E) a drying unit (item D, column 2, lines 25-34),

(F) optionally an aftertreatment unit (item F),

(G) an output unit for the flexographic printing plates obtained (item Q), and

(H) transport units for the flexographic printing elements or plates, which connect the units (A) to (G) to one another (arrows in Figure 1),

the units (A) to (H) being designed so that the flexographic printing elements or plates are processed in the flat state (column 5, line 15)."

The phrase "having a thickness of from 0.4 to 1.0 mm" is functional language, and does not distinguish over Okamura.

Okamura fails to disclose that "the at least two functional units of the same type are arranged along a moveable bar moveable in an Y-direction and optionally also in a X-direction essentially perpendicular to said Y-direction ... wherein each of the functional units produces an image in each case one part of the digitally imageable layer by moving the entire bar in the Y-direction and moving the bar or the imageable-layer in the X-direction."

Sawano discloses a digital imaging unit (figures 1-3, column 1, lines 4-10) in which a multi-head printer is moved in two orthogonal directions and/or the platen is moved in an orthogonal direction to the multi-head printer in order to effect printing (column 2, lines 14-25, column 3, lines 48-50, Figures 1-3). The digital imaging unit and method of Sawano allows for imaging at high speed (column 1, lines 59-62).

Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to use the digital imaging unit in the apparatus of Okamura in order to effect high-speed imaging.

Regarding claim 19, while not specifically stating so, the exposure unit H of Okamura could function as "a unit for preexposure of the photosensitive flexographic printing elements."

Regarding claim 20, Okamura as modified teaches all that is claimed, but fails to specifically teach that the apparatus is used "for the production of flexographic printing plates." However, Okamura clearly teaches that the apparatus can be used for printing newspapers (column 1, line 15) and that any plate that uses direct drawing can be produced (column 1, lines 43-46 and column 6, lines 20-22). Therefore, it would have been obvious to one having ordinary skill in the art to use the apparatus of Okamura in order to produce flexographic printing plates, especially those used in printing newspapers.

3. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okamura and Sawano in view of Knoll et al. (US 2003/0178130).

Regarding claim 18, Okamura as modified teaches all that is claimed, but fails to specifically teach that the "transport units comprise magnetic retaining apparatuses." However, Knoll et al. teach the use of a magnetic steel substrate in printing plates in order to have a simple and quick mounting procedure onto magnetic retaining devices (paragraph 4). Therefore, at the time of the invention, it would have been obvious to

one having ordinary skill in the art to include magnetic retaining apparatuses in the modified invention of Okamura in order to have a simple and quick mounting method.

4. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamura and Sawano, further in view of Leenders et al. (EP 1072953).

Regarding claim 21, Okamura in view of Sawano teaches "a process for the production of printing plates for newspaper printing (column 1, line 15),

wherein an apparatus as claimed in claim 17 (see the rejection above for claim 17) is used and the process comprises the following steps:

(a) placing of the photosensitive flexographic elements in the holding unit (A) (column 4, lines 3-5),

(b) imagewise recording on the digitally imageable layer by means of the imaging unit (B) (column 4, lines 4-6),

(d) removal of unexposed parts of the flexographic printing element and the residues of the digitally imageable layer by means of a suitable solvent or of a suitable solvent combination in the washout unit (D) (column 2, lines 35-38),

(e) drying of the washed out flexographic printing plate (column 2, line 32)

(g) output of the finished flexographic printing plate (item G of Figure 1, column 2, line 45),

the flexographic printing element or the flexographic printing plate being transported by the transport means (H) from one unit to the respective next unit and not being bent

during the entire processing procedure (column 2, line 45 and column 5, line 15, and figure 1)."

The phrase "for producing a mask on the flexographic printing element" is intended use, and does not distinguish over Okamura.

Okamura as modified fails to teach " (c) exposure of the flexographic printing element to actinic light by means of the exposure unit (C) through the mask produced" or that the drying is conducted "at from 105 to 160°C."

Leenders et al. teach a method of producing a flexographic printing element wherein a mask is produced by ink-jet means (pg 9, lines 5-6), said element is exposed through said mask (page 9, line 7), and then the unexposed regions are removed (page 9, lines 8-9). The method of Leenders et al. is used because it is convenient and results in a material that has a high receptivity (paragraph 7). Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to further modify the invention of Okamura according to Leenders et al. in order to create a highly receptive printing plate in a convenient manner.

Regarding claim 22, Leenders et al. further discloses "wherein the flexographic printing element is furthermore preexposed to actinic light in a step preceding (b), (paragraph 40) with the proviso that a flexographic printing element whose digitally imageable layer has a sufficient transparency to actinic light is used (paragraph 40)."

5. Claim 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Okamura, Sawano and Leenders et al., further in view of Knoll et al. (US 2003/0178130).

Regarding claim 23, Okamura as modified teaches all that is claimed, but fail to specifically teach that the "substrate comprises magnetizable spring steel." However, Knoll et al. teach the use of a magnetic steel substrate in printing plates in order to have a simple and quick mounting procedure (paragraph 4). Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to use a magnetic steel substrate in the modified invention of Okamura in order to have a simple and quick mounting method.

6. Claims 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamura, Sawano and Leenders et al., as applied to claim 21 above further in view of Arimatsu et al. (US 5317080).

Regarding claim 24, Okamura as modified teaches all that is claimed, including the use of a styrene/butadiene block copolymer, but fail to describe the content of the copolymer. Arimatsu et al. teach a flexographic printing plate composition (column 5, lines 67-68) "wherein the binder in the photopolymerizable layer is at least one styrene/butadiene block copolymer having a styrene content of from 20 to 50% by weight (column 6, lines 1-19)" which results in a tough and flexible plate (column 2, lines 20-25). Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to use the flexographic printing plate composition of Arimatsu et al. in the modified invention of Okamura in order to have a printing plate which is tough and flexible.

Regarding claim 25, Arimatsu et al. further teach "wherein the block copolymer has an average molecular weight M_w of from 80 000 to 150 000 g/mol (column 4, lines 8-11)."

Regarding claim 26, Arimatsu et al. further teach "wherein the styrene/butadiene block copolymer has a Shore A hardness of from 55 to 75 (column 6, lines 5-6)."

Regarding claim 27, Arimatsu et al. further teach "wherein the photopolymerizable layer furthermore comprises a plasticizer (column 5, line 7)," but are silent in regards to the percentage of the plasticizer in the layer. However, one having ordinary skill in the art would recognize that a plasticizer affects the plasticity of the final plate, and would have been motivated, through routine experimentation, to include it in an amount "from 5 to 50% by weight" in order to obtain an appropriate amount of plasticity in the plate.

Response to Arguments

7. Applicants' arguments with respect to all the claims have been considered but are moot in view of the new ground(s) of rejection.

Miscellaneous

8. Applicant's attention is directed to claim 20, step (c) where it appears that an autocorrect feature of the word-processing program used has inadvertently changed "(c)" to "©)". To prevent issues in the future, applicant is encouraged to correct this in future communications with the office.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua D. Zimmerman whose telephone number is 571-272-2749. The examiner can normally be reached on M-R 8:30A - 6:00P, Alternate Fridays 8:30A-5:00P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joshua D Zimmerman
Examiner
Art Unit 2854

jdz

JUDY NGUYEN
SUPERVISORY PATENT EXAMINER